

CLAIMS:

1. A handheld electronic device hinge for mechanically connecting first and second rotatable body members of a handheld electronic device, said hinge comprising a first bracket and a second bracket,

wherein said first bracket comprises: a first connecting member for connecting to the first rotatable body member of the handheld electronic device for rotation around a first axis; and a second connecting member connected to the second bracket for rotation of said second bracket around a second axis, said first and second axes being parallel to each other, and

wherein said second bracket comprises a third connecting member for connecting to the second rotatable body member of the handheld electronic device for rotation around a third axis, said third axis being perpendicular to said first and second axes.

2. A handheld electronic device hinge according to claim 1, wherein said first bracket further comprises a fourth connecting member for connecting to a third body member of the handheld electronic device.

3. A handheld electronic device hinge according to claim 2, wherein the third body member is rotatable and the fourth connecting member is for connecting to the third body member of the handheld electronic device for rotation around a fourth axis, said fourth axis being perpendicular to said first and second axes.

4. A handheld electronic device hinge according to claim 2 or claim 3, wherein said fourth connecting member is a detachable connecting member for detachably connecting to the third body member of the handheld electronic device.

5. A handheld electronic device hinge according to any previous claim, wherein the connecting members comprise at least one boss, the brackets being mounted on the bosses.

6. A handheld electronic device hinge according to claim 5, wherein the first connecting member comprises two bosses located along the first rotational axis.

7. A handheld electronic device hinge according to claim 5 or claim 6, wherein the second connecting member comprises two bosses located along the second rotational axis.
8. A handheld electronic device hinge according to any one of claims 5 to 7, wherein the third connecting member comprises a single boss located on the third rotational axis.
9. A handheld electronic device hinge according to any one of claims 5 to 8, wherein the fourth connecting member comprises a single boss located on the fourth rotational axis.
10. A handheld electronic device hinge according to any one of claims 5 to 9, wherein the brackets have circular holes through which each boss extends, the circular holes having an inner surface which slidably cooperates with an outer surface of the bosses whereby the brackets are supported on the bosses and are rotatable relative to the bosses.
11. A handheld electronic device hinge according to any one of claims 5 to 10, wherein each boss has a through hole for receiving wiring for electrically connecting the parts of the handheld electronic device.
12. A handheld electronic device hinge according to claim 11, wherein said through hole is 4mm or larger.
13. A handheld electronic device hinge according to any one of claims 5 to 12, wherein each boss has an elastic member mounted thereon for providing an urging force against a side surface of the first or second bracket to securely hold the bracket on the boss.
14. A handheld electronic device hinge according to claim 13, wherein the elastic element is a spring.
15. A handheld electronic device hinge according to any preceding claim, wherein the first bracket is a H-shaped bracket comprising a cross-piece and four lobes, said lobes being perpendicular to said cross-piece, each lobe having a circular hole for mounting the

first bracket on an outer surface of a boss, wherein the first bracket connects four bosses together.

16. A handheld electronic device hinge according to claim 15, wherein the cross-piece of the H-shaped bracket has a circular hole for mounting a boss, said boss comprising the fourth connecting member.

17. A handheld electronic device hinge according to any previous claim, wherein the second bracket is a C-shaped bracket comprising a cross-piece and two lobes, said lobes being perpendicular to said cross-piece, each lobe having a circular hole for mounting the second bracket on an outer surface of a boss, and the cross-piece having a circular hole for mounting a boss, whereby the two bosses mounted in the lobes comprise the second connecting member and the boss mounted in the cross-piece comprises the third connecting member.

18. A handheld electronic device comprising a first rotatable body member, a second rotatable body member and a handheld electronic device hinge according to any preceding claim, said handheld electronic device hinge connecting said first rotatable body member and said second rotatable body member.

19. A handheld electronic device according to claim 18, wherein the first rotatable body member comprises a keypad or a view screen.

20. A handheld electronic device according to claim 18 or claim 19, wherein the second rotatable body member comprises a keypad or a view screen.

21. A handheld electronic device according to any one of claims 18 to 20, wherein the handheld electronic device further comprises a third body member connected to the hinge.

22. A handheld electronic device according to claim 21, wherein said third body member is a camera.

23. A handheld electronic device according to claim 21 or claim 22, wherein said third body member is detachably connected to said hinge.

24. A handheld electronic device according to any one of claims 18 to 23, wherein said handheld electronic device further comprises a connecting element for connecting the mobile phone to a stand.

25. A handheld electronic device according to any one of claims 18 to 24, wherein said handheld electronic device further comprises a connecting element for connecting the mobile phone to an armband.

26. A handheld electronic device according to any one of claims 18 to 25, wherein said handheld electronic device further comprises a connecting element for connecting the mobile phone to a necklace.

27. A handheld electronic device according to any one of claims 18 to 26, wherein the electronic device is at least one of a mobile gaming device, a mobile phone, a hand-held video recorder, an electronic note pad, an electronic book, a PDA, a calculator, a personal stereo and a dictaphone.

28. A handheld electronic device comprising a first rotatable body member, a second rotatable body member, a third rotatable body member and a handheld electronic device hinge, said handheld electronic device hinge being disposed between said first, second and third rotatable body members whereby said first, second and third rotatable body members are rotatable relative to each other.

29. A handheld electronic device according to claim 28, wherein said first rotatable body member comprises a keypad, said second rotatable body member comprises a view screen and said third rotatable body member comprises a camera.

30. A handheld electronic device according to claim 28 or claim 29, wherein said second rotatable body member is rotatable around two perpendicular axes relative to said first rotatable body member.

31. A handheld electronic device according to any one of claims 28 to 30, wherein said third rotatable body member is rotatable around two perpendicular axes relative to said first rotatable body member.

32. A handheld electronic device according to any one of claims 28 to 31, wherein said second rotatable body member is rotatable around two perpendicular axes relative to said third rotatable body member.